AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions, and listings of claims in the Application.

1. (cancelled)

2. (cancelled)

3. (cancelled)

4. (cancelled)

5. (cancelled)

6. cancelled)

7. (cancelled)

8. (cancelled)

9. (cancelled)

10. (cancelled)

11. cancelled)

12. (currently amended) A method of manufacturing a ceramic matrix composite turbine blade comprising the steps of:

providing a homogeneously solid core insert section having a preselected geometry, the core insert section comprising a material selected from the group consisting of silicon carbide-silicon carbide composite preform having at least some porosity, silicon-silicon carbide composite, silicon-silicon carbide composite preform having at least some porosity, and a monolithic ceramic;

providing a plurality of plies of silicon carbide prepregged cloth;

laying up a preselected number of silicon carbide prepreg plies to form an outer shell section;

assembling the homogeneously solid core insert section and the outer shell section into a turbine blade form, the turbine blade form comprising a dovetail section and an airfoil section, wherein the core insert section is positioned in the dovetail section of the turbine blade form;

autoclaving the turbine blade form;

filling remaining porosity in the turbine blade form with at least silicon using a silicon melt infiltration process, the filling also forming a bond between the core insert section and the outer shell preform.

13. (currently amended) The method of claim 12, wherein the homogeneously solid core insert section is a silicon-silicon carbide composite preform.

14. (previously presented) The method of claim 13, wherein the silicon-silicon carbide composite preform includes carbon microspheres.

15. (currently amended) The method of claim 12, wherein the homogeneously solid core insert section is a silicon carbide-silicon composite carbide preform manufactured using a slurry cast process.

16. (currently amended) The method of claim 12, wherein the homogeneously solid core insert section is a silicon carbide-silicon carbide composite preform manufactured using a prepreg process.

17. (currently amended) A method of manufacturing a ceramic matrix composite turbine blade comprising the steps of:

providing a homogeneously solid core insert section having a preselected geometry, the core insert section comprising a material selected from the group consisting of a silicon carbide-silicon carbide composite preform having at least some porosity, a silicon-silicon carbide composite, the silicon-silicon carbide composite preform having at least some porosity, and a monolithic ceramic;

providing an outer shell section preform, the outer shell preform having at least some porosity;

assembling the homogeneously solid core insert section and the outer shell preform into a turbine blade form, the turbine blade form comprising a dovetail section and an airfoil section, wherein the homogeneously solid core insert section is positioned in the dovetail section of the turbine blade form; and

filling remaining porosity in the turbine blade form with at least silicon using the silicon melt infiltration process, the filling also forming a bond between the homogeneously solid core insert section and the outer shell preform.

18. (currently amended) The method of claim 17, wherein the homogeneously solid core insert section is a silicon-silicon carbide composite preform.

19. (previously presented) The method of claim 18, wherein the silicon-silicon carbide composite preform includes carbon microspheres.

20. (currently amended) The method of claim 19, wherein the homogeneously solid core insert section is a silicon carbide-silicon carbide composite preform manufactured using a slurry cast process.

21. (new) The method of claim 12, wherein homogeneously solid core insert section is prefabricated.

22. (new) The method of claim 17, wherein the homogeneously solid core insert section is prefabricated.

23. (new) The method of claim 12, wherein the homogeneously solid core insert section is stiffer than the outer shell section.

24. (new) The method of claim 12, wherein the homogeneously solid core insert section is stiffer than the outer shell preform section.